

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS

1. (currently amended) A method for amplifying ATP comprising: allowing a fusion protein of that has a polyphosphate kinase and an adenylate kinase in this order from the N-terminal and that has been subjected to a treatment for removing ADP to act on a mixture containing ATP, AMP, and a polyphosphate compound.

2. (canceled)

3. (currently amended) A method for detecting ATP comprising:  
allowing a fusion protein of that has a polyphosphate kinase and an adenylate kinase in this order from the N-terminal and that has been subjected to a treatment for removing ADP to act on a mixture of ATP, AMP, and a polyphosphate compound to amplify ATP; and  
detecting the amplified ATP.

4. (canceled)

5. (currently amended) A method for rapidly detecting the presence of a microorganism comprising:  
treating a sample containing a microorganism to prepare a sample containing ATP;  
adding the sample containing ATP to an ATP amplification system to amplify ATP; and

detecting the amplified ATP,

wherein the ATP amplification system comprises AMP, a polyphosphate compound, and a fusion protein of that has a polyphosphate kinase and an adenylate kinase in this order from the N-terminal and that has been subjected to a treatment for removing ADP , ~~the fusion protein not containing ADP~~ .

6. (currently amended) A kit for rapidly detecting the presence of a microorganism, comprising an ATP amplification reagent containing AMP, a polyphosphate compound, and a fusion protein of that has a polyphosphate kinase and an adenylate kinase in this order from the N-terminal and that has been subjected to a treatment for removing ADP , ~~the fusion protein not containing ADP~~ ; and an ATP detection reagent for detecting ATP.

7. (original) The kit of claim 6, further comprising a cell lysis reagent.

8. (canceled)

9. (currently amended) A fusion protein of that has a polyphosphate kinase and an adenylate kinase in this order from the N-terminal and that has been subjected to a treatment for removing ADP.

10. (canceled)